## NOTE III.

## A REVISION OF THE GENUS CLIDICUS

BY

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This interesting genus of gigantic Scydmaenidae was described by Laporte, comte de Castelnau, in the Ann. Soc. Entom. de France, 1832, p. 396, and based on the first known species Clidicus grandis; the same species has been figured in the Atlas of the Genera des Coléoptères of Lacordaire, tab. 16, fig. 4, and Fairmaire (Ann. Soc. Ent. de France, 1856, p. 317) added some complementary remarks to its description. In 1863 Pascoe (Journ. of Entomology, II, p. 28, plate II, fig. 3) described a second species as Cl. formicarius. A third species, Cl. taphrocephalus, was added by Gestro in 1878 in the Ann. Mus. Civ. Genova (XII, p. 144). The Clidicus Doriae, described by Schaufuss in the Ann. Mus. Civ. Genova, 1884 [(2) I, p. 419], does not differ essentially from formicarius according to Reitter (Wien. Entom. Ztg. 1887, p. 64). Reitter himself described (loco citato) a supposed new species of *Clidicus* under the name of Ganglbaueri; but this description was founded upon a mistake, corrected by Reitter on p. 303 of the same volume; the species, which Reitter supposed to be Cl. grandis Casteln. proved to be taphrocephalus Gestro, and Ganglbaueri Reitter is certainly grandis of Castelnau, as the latter author has described as grandis a species with triangular, highly bituberculated head.

Nevertheless I think, we must consider Cl. Ganglbaueri

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not simply synonymous with grandis Cast., because the specimen in the Hofmuseum of Vienna, which Reitter has described as Ganglbaueri, belongs to a form of grandis with smaller, not perfectly rounded thorax, which I find also among the grandis-specimens of the Museum of Leyden and which must be considered as a variety of grandis, whose typical form has a larger, perfectly globose thorax. Perhaps it will be proved later, that this difference is only of sexual or individual character; but meanwhile it will be safer to retain Ganglbaueri as a variety of grandis. Finally I found in the collection of the Leyden Museum a specimen named (but not described) as villosulus Vollenh., which is identical with formicarius Pasc.

The *Clidicus* of the Hofmuseum of Vienna and of the Rijksmuseum of Leyden, being sent to me for revision by the kindness of Messrs. Ganglbauer and Ritsema, I think it not superfluous to give a short systematical synopsis based on 23 specimens of the 3 above named species <sup>1</sup>), adding also some biological remarks.

The three species of *Clidicus* agree in their large size, brown or yellowish brown colour, in the ochraceous villosity, which is always longer on the elytra, in the sharp, ant-like division of the body into three parts, the head being connected with the thorax by a short neck, the thorax highly convex and rounded anteriorly and posteriorly, the elytra convex and ampliated, and in the long, slender, ant-like legs. — They differ especially in the form of the head, in the length of the antennae and in the sculpture of the elytra: grandis and formicarius have the head d posteriorly bilobate, in taphrocephalus it is simply rounded; the antennae attain in formicarius  $\frac{1}{2}$ , in grandis  $\frac{3}{4}$  of the length of the body, in taphrocephalus they are as long as the body; the elytra are in grandis rather superficially striated, with plain intervals, in formi-

<sup>1)</sup> Erineus monstrosus Walk. (thorace subquadrato) belongs also to this genus according to Pascoe (loc. supra cit.), but is unknown to me.

Notes from the Leyden Museum, Vol. XVIII,

carius and taphrocephalus deeply striated, with convex intervals; the points of the striae are very large in formicarius, small in grandis and taphrocephalus; in formicarius the thorax is slightly transverse, in grandis as long as broad, in taphrocephalus distinctly oblong.

Synopsis of species.

A. Capite postice bilobato, ideoque subtriangulari.

a. Antennae breves, corporis medium vix attingentes, art. 3° paullo longiore 2°, 4—10 subquadratis; palpi maxillares articulo ultimo latitudine duplo tantum longiore, valde inflato. Caput longitudinaliter late sulcatum, vertice haud foveolato. Thorax paullo transversus, subcordatus (antice latior), elytra profunde striatopunctata, punctis striarum magnis, striarum interstitiis latera versus convexis. Pedes mediocriter elongati. Castaneus vel nigropiceus. 7—8 mm. Java, Borneo, Sumatra:

formicarius Pase.

(villosulus v. Vollenh. i. l.).

Thorace sparsius punctato:

Var. Doriae Schauf.

b. Antenuae longae, corporis medium longe superantes at corpore breviores, art. 3° duplo longiore 2°, 3—10 elongato-triangularibus, sensim brevioribus; palpi maxillares articulo ultimo valde elongato, minus inflato, latitudine plus triplo longiore. Caput longitudinaliter profunde sulcatum, vertice minutissime foveolato. Thorax haud transversus, globosus vel subglobosus, elytra obiter striatopunctata, striis vix impressis (fere seriato-punctata), punctis sat parvis, striarum interstitiis planis. Pedes valde elongati. Ferrugineus vel rufopiceus. 8—9 mm. Java:

grandis Casteln. (nec Rttr.):

 c. thorax major, globosus, valde convexus, postice perpendicularis (hinten senkrecht abfallend):

grandis Cast. in spec.

β. thorax minor, subglobosus, basin versus distincte angustior (sed haud transversus ut in Cl. formicario), minus convexus, postice obliquus (hinten schräg abfallend):

Var.? Ganglbaueri Rttr. 1) B. Capite postice haud bilobato, ideoque rotundato.

Autennae longissimae, corporis longitudine, art. 3° duplo longiore 2°, 3—10 elongato-conicis, sensim brevioribus; palpi maxillares articulo ultimo latitudine triplo longiore, modice inflato. Caput in fronte linea longitudinali impressa, haud sulcatum, in vertice late profundeque foveolatum. Thorax oblongoovalis (latitudine distincte longior), elytra striis profunde impressis, punctis striarum parvis, interstitiis striarum convexis. Pedes longissimi. Piceus vel piceotestaceus.  $7-7\frac{1}{2}$  mm. Borneo. In Mus. Civico Genuensi et Mus. Imperiali Vindobonensi:

> taphrocephalus Gestro. (grandis Rttr. nec Casteln.).

The habits of this remarkable genus of Scydmaenidae are but very imperfectly known. The myrmecoid form of the body alone would not allow us to declare this genus myrmecophilous, as the general »habitus" of all Scydmaenidae has something of an »ant-form", wherefore Müller and Kunze in their Monograph of Scydmaenidae<sup>2</sup>) simply called the whole family »ant-beetles" (Ameisenkäfer). But only a few genera, as *Chevrolatia*, *Euthiconnus* and *Napochus*, are regularly living in the society of ants, in their nests or in the immediate vicinity, and are therefore regu-

<sup>1)</sup> There are some transitions between these two forms of  $\alpha$  and  $\beta$  among the *Cl. grandis* of the Leyden Museum. Among the 13 *Cl. formicarius* of the various collections I find no similar difference in the size and form of the thorax; this seems to insinuate, that the noted difference in *grandis* is not a sexual one. On the other hand the *grandis* with the larger thorax have also a larger head, what might be supposed a sexual character.

<sup>2)</sup> Monographie der Ameisenkäfer (Schriften d. Naturforsch. Gesellsch. Leipzig, I, 1822).

<sup>2\*</sup> 

larly myrmecophilous (gesetzmässig myrmekophil)<sup>1</sup>). If this is the case also in *Clidicus*, must be decided by observations, which are very scarce till now. The specimen of *Clidicus grandis* Cast. (Var. *Ganglbaueri* Rttr.) in the Wiener Hofmuseum has the note affixed: »Ploem, Java 1870; bei Ameisen (*Lobopelta*)." The last three words are in the handwriting of Dr. G. Mayr, the famous myrmecologist of Vienna.

Moreover Fruhstorfer wrote to me, that he found *Clidicus formicarius* in western Java with ants (Pengalengan, 4000', 1893); the ant is, according to Prof. Emery's information, *Lobopelta (Leptogenys) Fruhstorferi* Em. Therefore it seems probable, that the genus *Clidicus* is indeed myrmecophilous and lives with ants of the genus *Lobopelta*.

Exacten near Roermond, January 1896.

<sup>1)</sup> Wasmann, Kritisches Verzeichniss der myrmekophilen und termitophilen Arthropoden (Berlin, 1894), pp 122-125.